Certificate

940 South Harney St., Seattle, Washington 98108 (206) 767-5060

Chemistry Microbiology and Technical Services

CLIENT: Alaska Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown

LABORATORY NO. 4421

DATE: June 22, 1987

PO# M2847

REPORT ON: WATER

SAMPLE

Submitted 06/09/87 and identified as shown below: IDENTIFICATION:

3200 - M2847 Metro waste Discharge taken 6/2/87.

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Chromium Zinc -

Copper Nickel

0.27 0.14

0.19

0.27

Respectfully submitted,

Laucks Testing Laboratories, Inc.

JMO:jm



Laucks Testing Laboratories, Inc. 940 South Harney St. Seattle. Washington 98108 (206)767-5060



Certificate

Chemistry Microbiology and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown LABORATORY NO. 4422

DATE: June 22, 1987

PO# M2848

REPORT ON: WATER

SAMPLE

IDENTIFICATION: Submitted 06/09/87 and identified as shown below:

ID# 3200 M 2848

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Zinc Chromium Copper Nickel 0.066 0.82 0.30 0.58

Respectfully submitted,

Laucks Testing Laboratories, Inc.

M. Owens

JMO:jm





940 South Harney St. Seattle Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown LABORATORY NO. 4423

DATE: June 22, 1987

PO# M2849

REPORT ON: WATER

SAMPLE

IDENTIFICATION: Submitted 06/09/87 and identified as shown below:

ID# 3600 M 2849

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

 Zinc
 2.9

 Chromium
 2.4

 Copper
 0.37

 Nickel
 1.9

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO:jm





LABORATORY NO. 4580

DATE: July 7, 1987

PO# M2947

940 South Harney St. Seattle. Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown

WATER

.i.

REPORT ON:

SAMPLE IDENTIFICATION:

Submitted 06/19/87 and identified as shown below:

Metro Waste Discharge ID# 3600-M

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Chromium Copper Nickel Zinc 0.010 0.018 L/0.01 0.019

Key

L/ indicates "less than"

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO: laj





LABORATORY NO. 4606

DATE: July 7, 1987

PO# M 2972

940 South Harney St., Seattle Washington 98108 (206)767-5060

Chemistry Microbiology and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124

ATTN: Jim Brown

REPORT ON:

WATER

SAMPLE

IDENTIFICATION:

Submitted 06/23/87 and identified as shown below:

Metro Waste Discharge ID# 3200-M 2972

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Chromium Copper Nickel Zinc

1.2 0.29 0.72 0.071

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO: laj





940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124

ATTN: Jim Brown

LABORATORY NO. 4579

DATE: July 7, 1987

PO# M2946

REPORT ON:

WATER

SAMPLE

IDENTIFICATION:

Submitted 06/19/87 and identified as shown below:

Metro Waste Discharge Test ID# 3200-M

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

 Chromium
 0.69

 Copper
 0.20

 Nickel
 0.45

 Zinc
 0.035

<u>Key</u>

L/ indicates "less than"

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO: laj



Certificate

940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry. Microbiology. and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546

Seattle, WA 98124 ATTN: Jim Brown

LABORATORY NO. 4730

DATE: July 13, 1987

PO# M-3056

REPORT ON:

NITRIC ACID

SAMPLE

IDENTIFICATION:

Submitted 07/01/87 and identified as shown below:

1) ID# 3600

2) ID# 3200

TESTS PERFORMED AND RESULTS:

	1	2	•
		and the second s	
Total Acidity calculated as, % HNO3 (methyl orange end point)	0.1	0.1	RECEIVED
(methyl orange end point)	9.1	8.1	JUL 22
Specific Gravity at 25°C	1.118	1.266	MAINTENANCE

Respectfully submitted,

Laucks Testing Laboratories, Inc.

JMO: laj

mb./NaOH)(N) (.063016) X100







LABORATORY NO. 4730

DATE: July 13, 1987

PO# M-3056

940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

Alaskan Copper Works CLIENT:

P.O. Box 3546 Seattle, WA 98124

ATTN: Jim Brown

REPORT ON:

NITRIC ACID

SAMPLE

IDENTIFICATION:

Submitted 07/01/87 and identified as shown below:

1) ID# 3600 2) ID# 3200

TESTS PERFORMED AND RESULTS:

	1	2	RI	ECEIVED
Titil Assidition coloniated as % UNO2			JU	22
Total Acidity calculated as, % HN03 (methyl orange end point)	9.1	8.1	MA	NTENANCE
Specific Gravity at 25°C	1.118	1.266	*. · · · · · · · · · · · · · · · · · · ·	

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO: laj







Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown

INVOICE NO. 4730

DATE: July 13, 1987

PO# M-3056

For the analysis of WATER: ------\$80.00

> RECEIVED JUL 22 MAINTENANCE









LABORATORY NO. 4730

DATE: July 13, 1987

PO# M-3056

940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124

ATTN: Jim Brown

NITRIC ACID

SAMPLE

REPORT ON:

IDENTIFICATION:

Submitted 07/01/87 and identified as shown below:

1) ID# 3600 2) ID# 3200

TESTS PERFORMED AND RESULTS:

	1	2	
Total Acidity calculated as, % HNO3 (methyl orange end point)	9.1	8.1	RECEIVED JUL 22
Specific Gravity at 25°C	1.118	1.266	MAINTENANCE

Respectfully submitted,

Laucks Testing Laboratories, Inc.

幻. M. Owens

JMO: laj





Certificate

LABORATORY NO.

PO# M 3058

DATE: July 17, 1987

4732

940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546

Seattle, WA 98124 ATTN: Jim Brown

REPORT ON:

WASTE

SAMPLE

IDENTIFICATION:

Submitted 07/01/87 and identified as shown below:

ID# 3200

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Zinc 0.050 Chromium 0.89 Copper 0.27 Nickel 0.47 RECEIVED

JUL 22

MAINTENANCE

Respectfully submitted,

Quens

Laucks Testing Laboratories, Inc.

M. Owens

JMO: laj





LABORATORY NO. 4731

DATE: July 17, 1987

PO# M 3057

940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546

Seattle, WA 98124

ATTN: Jim Brown

REPORT ON:

WASTE

SAMPLE

IDENTIFICATION:

Submitted 07/01/87 and identified as shown below:

ID# 3600

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Zinc Chromium Copper Nickel

0.18 0.031 0.09

0.072

RECEIVED

JUL 22

MAINTENANCE

Respectfully submitted,

Laucks Testing Laboratories, Inc.

M. Owens

JMO: laj





LABORATORY NO.

DATE: July 17, 1987

4788

940 South Harney St., Seattle. Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown

REPORT ON:

WATER

SAMPLE

IDENTIFICATION:

Submitted 07/07/87 and identified as shown below:

Metro Waste Discharge ID# 3200 M3099

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

 Chromium
 1.0

 Copper
 0.41

 Nickel
 0.56

 Zinc
 0.12

RECEIVED

JUL 22

MAINTENANCE

Respectfully submitted,

Laucks Testing Laboratories, Inc.

. M. Owens

JMO:laj







Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown INVOICE NO. 4731

DATE: July 17, 1987

PO# M 3057

For the analysis of WASTE: -----\$44.00

RECEIVED
JUL 22
MAINTENANCE







Laucks Testing Laboratories, Inc. 940 South Harney Street. Seattle, Washington 98108 (206) 767-5060



Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

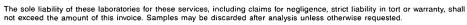
P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown INVOICE NO. 4788

DATE: July 17, 1987

For the analysis of WATER: -----\$44.00

RECEIVED
JUL 22
MAINTENANCE







Testing Laboratories, Inc. 940 South Harney Street. Seattle. Washington 98108 (206) 767-5060



Invoice

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown INVOICE NO. 4732

DATE: July 17, 1987

PO# M 3058

For the analysis of WASTE: ------\$44.00 RECEIVED **JUL 22** MAINTENANCE







Chemistry Microbiology, and Technical Services

Alaskan Copper Works
ATTN: Jim Brown
P.O. Box 3546
Seattle, WA 98124

INVOICE NO. 4903

DATE: July 28, 1987

PO #M3159

For analysis of WATER ----- \$44.00

RECEIVED

JUL 80

MAINIENANCE





LABORATORY NO. 4903

DATE: July 28, 1987

PO #M3159

940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124

ATTN:

Jim Brown

REPORT ON: WATER

SAMPLE

Chromium

Copper

Nicke1

Zinc

IDENTIFICATION: Submitted 7/14/87 and identified as shown:

Metro Waste Discharge ID# 3200-M315P

parts per million (mg/L)

0.51 0.21

0.31

0.058

RECEIVED

JUL 30

MAINTENANCE

Respectfully submitted,

Laucks Testing Laboratories, Inc.

M. Owens

JMO: veg





RECEIVED
AUG 8
MAINTENANCE



940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124

ATTN: Jim Brown

LABORATORY NO. 5006

DATE: August 5, 1987

PO# M3232

REPORT ON:

WATER

SAMPLE

IDENTIFICATION:

Submitted 07/21/87 and identified as shown below:

ID# 3200-M 3232

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

 Zinc
 0.077

 Chromium
 L/0.005

 Copper
 0.20

 Nickel
 0.63

Respectfully submitted,

Laucks Testing Laboratories, Inc.

JMO: laj







Chemistry. Microbiology. and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown INVOICE NO. 5006

DATE: August 5, 1987

PO# M3232

For the analysis of WATER: ----\$ 44.00

> **RECEIVED** AUG MAINTENANCE



The sole liability of these laboratories for these services, including claims for negligence, strict liability in tort or warranty, shall not exceed the amount of this invoice. Samples may be discarded after analysis unless otherwise requested.



Testing Laboratories, Inc. 940 South Harney Street. Seattle. Washington 98108 (206) 767-5060



Chemistry Microbiology, and Technical Services

Alaskan Copper Works P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown

INVOICE NO. 5106

DATE: August 7, 1987

For the analysis of WATER -----









LABORATORY NO. 5106

DATE: August 7, 1987

940 South Harney St., Seattle, Washington 98108 (206)767-5060

Chemistry. Microbiology. and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124

ATTN: Jim Brown

REPORT ON: WATER

SAMPLE

IDENTIFICATION: Submitted 07/28/87 and identified as shown below:

Metro waste discharge ID# 3200-M3305

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

 Chromium
 0.60

 Copper
 0.15

 Nickel
 0.28

 Zinc
 0.026

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Vowens

JMO:jm







Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546 Seattle, WA 98124 ATTN: Jim Brown INVOICE NO. 5256

DATE: August 14, 1987

PO# M-3357

For the analysis of WASTE DISCHARGE ----- \$44.00

